What is claimed is:

1. A printed circuit board having a permanent solder mask comprising:

a substrate made of a material including a first resin, said substrate having top and bottom surfaces, a first conductive pattern disposed on said top surface and having an unsheltered portion and a sheltered portion, said unsheltered portion having a base and a tip; and

a first solder mask made of a second resin having a thermal expansion coefficient substantially identical to that of said first resin of said substrate, said first solder mask coated on said top surface in such a way that a layer having a first area and a second area is formed thereon, said first area having a first thickness, a smooth outer surface, and covering said sheltered portion, said second area having a second thickness less than that of said first area and surrounding said base of said unsheltered portion such that said tip of said unsheltered portion is exposed outside.

2. The printed circuit board of claim 1, wherein the difference between the thickness of the highest position of said first area of said first solder mask and that of the lowest position of said first area of said first solder mask is equal to or less than 10μm measuring with a length unit of 500mm.

3. The printed circuit board of claim 1, wherein said bottom surface of said substrate is disposed a

second conductive pattern having an unsheltered portion and a sheltered portion.

4. The printed circuit board of claim 3, wherein a second solder mask made of said second resin is coated on said bottom surface in such a way that a layer having a first and second areas are formed thereon, said first area having a first thickness, a smooth outer surface, and covering said sheltered portion, said second area having a second thickness less than that of said first area and surrounding said base of said unsheltered portion such that said tip of said unsheltered portion is exposed outside.

5.The printed circuit board of claim 3 or 4, wherein said substrate further comprises a plurality of conductive vias therethrough by which said conductive patterns are electrically connected each other.

6.The printed circuit board of claim 5, wherein said conductive via has an interfill made of a material identical to that of said solder mask.

7.The printed circuit board of claim 1, wherein the average thickness of said first area of said solder mask is between 2μm ~200μm.

8.The printed circuit board of claim 1, wherein the micro-roughness of said outer surface of said first area is between 0.5μm~10μm.